

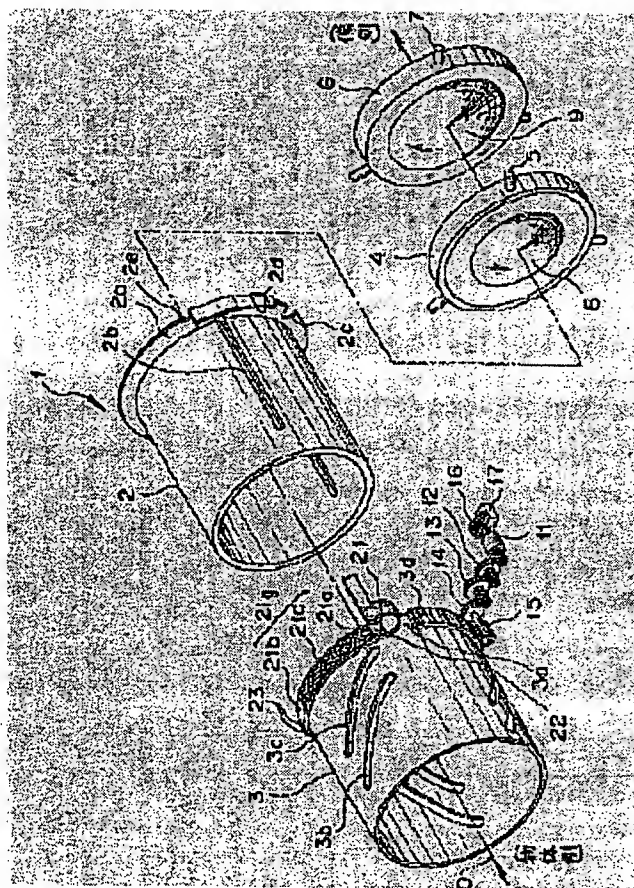
ENCODER DEVICE

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Inventor: TAKANASHI TATSUO; IWASA KAZUYUKI
Applicant: OLYMPUS OPTICAL CO
Classification:
- **International:** G01D5/30; G02B7/08; G02B7/10; G01D5/26;
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- **European:**
Application number: JP20010034322 20010209
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Abstract of JP2002243502

PROBLEM TO BE SOLVED: To provide an encoder device which is easy in assembling and advantageous in terms of cost.
SOLUTION: A lens barrel 1 including this encoder device has a cam ring 3 rotatably fitting to a fixing frame 2, and an FPC 21 (flexible printed circuit circuit) for an encoder is disposed by straddling between the circumferential surface of the cam ring 3 and the inside peripheral part of an eaves part 2d of the fixing frame 2 in a U-shaped bent form. A pattern part 21g for the encoder comprising a PR(photo-reflector) 22, reflecting pattern parts 21a and 21b and a non-reflecting pattern part 21c is disposed on the FPC 21, and in the mounted form thereof, they are brought into a relatively movable state by facing to each other. When the cam ring 3 is rotated to each zooming position, a detection signal corresponding to the zooming rotation position is outputted from the PR 22, so that the zooming state is detected.



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